LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF ENVIRONMENTAL ASSESSMENT

REMEDIATION SERVICES DIVISION

REPORT FOR FISCAL YEAR

2003 – 04

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EXECUTIVE SUMMARY

This annual report for fiscal year 2003-2004 (FY 03-04), provides an overview of the Louisiana Department of Environmental Quality (LDEQ) Remediation Services Division (RSD) remediation program accomplishments and updates, use of funding, and remediation activities. It also serves as a vehicle for submission of the site lists required by the Louisiana Legislature in R.S. 30:2226H. This year's report provides an updated map and list of the sites that were completed during the past fiscal year (Appendix A). Also included are reports on some of the prominent site cleanup projects for FY 03-04, annual update of the National Priorities List (NPL) sites in Louisiana, and a list of sites that are enrolled in the LDEQ's Voluntary Remediation Program (VRP).

Significant program activities for the RSD during FY 03-04 included: entrance of several new properties into the RSD's VRP, and completion of three property remediation projects under the VRP; new EPA Brownfields awards granted to six Louisiana communities; enactment of Brownfields Cleanup Revolving Loan Fund (BCRLF); drafting regulations for the new BCRLF; implementation of the "Ready for Reuse" Program; work with Louisiana Department of Health and Hospitals in development of an Environmental Health Effects Tracking Program; the RSD's involvement with real estate transactions; and the updates to the Risk Evaluation and Corrective Action Program (RECAP) which establishes specific site remediation standards and human risk levels.

Also during FY 03-04, the RSD continues to find innovative ways to address increased volume of sites by refining and improving its internal site remediation process, and prioritize and issue site remediation contracts funded by the Hazardous Waste Site Cleanup Fund.

REMEDIATION SERVICES DIVISION

REMEDIATION SERVICE PROGRAM ACCOMPLISHMENTS AND UPDATES FY 03-04

VOLUNTARY REMEDIATION AND BROWNFIELDS PROGRAMS

VOLUNTARY REMEDIATION PROGRAM

The RSD initiated the Voluntary Remediation Program (VRP) during FY 00-01 when the VRP regulations were promulgated. Since that time, the RSD has continued to implement the VRP by providing administrative, technical, and legal incentives to facilitate voluntary cleanups to encourage the redevelopment and reuse of contaminated properties. Through this program, properties that are abandoned, or otherwise idled due to contamination, are put back into productive use.

Participation in the VRP continued to increase at a rapid rate during FY 03-04, as sixteen (16) sites entered the program. As of June 30, 2004, a total of 43 properties had been enrolled in the VRP – an increase of 53% over the previous year's participation. Three VRP participants completed remediation this past year. One of these properties received a Certificate of Completion (COC) and two properties received No Further Action (NFA) letters. One of the properties receiving an NFA/COC was the Roy Young Site in Abbeville, which is featured elsewhere in this report.

BROWNFIELDS PROGRAM ACTIVITIES

Interest in local level participation in the EPA Brownfields Program continued to grow during this fiscal year in Louisiana, and the RSD continued to work closely with the existing local brownfields programs. Technical assistance for assessment and cleanup of brownfields properties was provided by the RSD to all of the local programs. In June 2004, the U.S. EPA announced six new awards to Louisiana communities, totaling $889,233. The City of New Orleans received two grants totaling $400,000 and the New Orleans Regional Planning Commission received $200,000. Three Louisiana non-profit organizations received the remaining awards. The Biomedical Research Foundation of Northwest Louisiana received $43,431; the Northwest Louisiana Council of Governments received $152,429; and the Faith City International Ministries in Baton Rouge received $93,373. These funds will be utilized for several new projects, resulting in construction and redevelopment of properties and the creation of new jobs.

A highlight of the RSD's work with the local brownfields programs for FY 03-04 was its second annual Louisiana Brownfields Workshop, which the RSD hosted in partnership with

the U.S. EPA Region 6 and the University of New Orleans. This workshop provided new information to the local brownfields programs, and allowed them to exchange ideas and share accomplishments. The LDEQ RSD and the U.S. EPA's Region 6 staff members, along with experts from the private sector and non-profit organizations, were featured speakers. Local program representatives also presented their showcase projects and discussed their experiences in various aspects of the brownfields program. Every local brownfields program in Louisiana was represented, and all agreed that the second annual Louisiana Brownfields Workshop was a success. The RSD is preparing to continue this annual workshop, and is planning to develop a specialized workshop during the coming year.

USTfields Program

The RSD continued to work with the cities of Baton Rouge and Westwego on USTfields projects during FY 03-04. Having received two USTfields grant awards from the U.S. EPA for $100,000 each in 2002, the RSD had executed cooperative agreements with each of the cities to provide funding to investigate and remediate one site in each city.

The North Boulevard Expansion project in Baton Rouge will expand the existing thoroughfare and add a railroad overpass. It is expected to greatly stimulate economic development in the surrounding area near downtown Baton Rouge.

At the site of the former Clem's Service Station Site, the city of Westwego plans to build a modern governmental complex, which would house city government and perhaps other local or state governmental agencies. The City of Westwego experienced some unavoidable delay in acquiring the Clem's Service Station property, but is expected to accomplish this in 2005. As soon as the City of Westwego acquires the property title and can obtain site access, it will immediately begin Site Investigation.

Brownfields Cleanup Revolving Loan Fund Program

As enacted during the 2004 regular legislative session, R.S. 30:2551 and 2552 established the Brownfields Cleanup Revolving Loan Fund (BCRLF) and authorized the LDEQ to make low interest loans to public and private entities to promote the cleanup and redevelopment of brownfields properties. This statute also authorized the LDEQ to promulgate regulations to implement the loan program. The RSD has begun the drafting of these regulations, and plans to propose them for promulgation in 2005.

UPDATE ON FEDERAL BROWNFIELDS FUNDING FOR RSD

The Small Business Liability Relief and Brownfields Revitalization Act ("Brownfields Law") of 2002 redefined brownfields sites and expanded the federal brownfields program by authorizing grant-funded activities at certain petroleum-contaminated sites. It also authorized a $50 million grant program to establish and enhance state brownfields response programs.

During FY 03-04, the RSD received a $460,000 grant award for development of its State Response Program (SRP) and $350,000 to capitalize a new Brownfields Cleanup Revolving Loan Fund (BCRLF). During FY 03-04, the RSD also applied for additional SRP and BCRLF funding for FY 04-05. Awards of $350,000 for the SRP and $150,000 for the BCRLF are anticipated for the next fiscal year from the U.S. EPA Region 6.

READY FOR REUSE PROGRAM

"Ready for Reuse" is a new measure of success among the U.S. EPA cleanup programs, and is a key component of the EPA's National Land Revitalization Initiative. The U.S. EPA Region 6 in Dallas developed the concept. The goal of this initiative is to make land revitalization and reuse a fundamental element of all EPA and State cleanup programs (e.g., RCRA, Superfund, Brownfields, underground storage tanks, voluntary cleanups, etc.) to help foster economic development, and return previously contaminated or abandoned properties back to productive use.

This new measure recognizes when a site or facility has been addressed to the extent that it is safe for reuse or redevelopment. The Land Revitalization Initiative represents a change in the EPA's focus: it is not enough to merely clean up a site (to protect the environment and the public's health), only to then put a fence around it and leave it idle. The goal now is to come full circle and return the property to productive use for the benefit of the community around it. This is not intended to be a clean-closure approach; rather, it encourages cleanups that will quickly support protective redevelopment opportunities. As part of this effort, a regulatory "certification" is provided that will be an affirmatory determination that the site is considered acceptable for its designated reuse. The "Ready for Reuse" determination verifies that the environmental conditions on a property are protective of human health and the environment based on its current use and anticipated future use as a commercial/industrial operation.

In its simplest form, the U.S. EPA Region 6 Ready for Reuse Program is a certification process that recognizes when contamination has been evaluated and, if necessary, cleaned up to the extent that a property is safe for its current use or planned future use.

The primary purpose of the Ready for Reuse determination is to document, in a straightforward manner, specific information about the current environmental conditions on a property (i.e., concentrations of contaminants present and their associated risks), the work performed at the site to address risks and to identify that the entire facility – or portions of the facility – are ready for reuse.

LOUISIANA'S PARTICIPATION IN THE READY FOR REUSE PROGRAM

The LDEQ has committed to utilize the land use revitalization program "Ready for Reuse," together with the existing Brownfields and Voluntary Remediation Programs to help promote redevelopment opportunities at facilities and sites throughout the state. These include operating facilities as well as facilities that are not in full use, where there is development or redevelopment potential, and where reuse or development of these sites is slowed due to concerns about RCRA requirements.

The LDEQ began participation with the U.S. EPA in the Ready for Reuse program in July 2003. A number of facilities were contacted to make them aware of the Ready for Reuse initiative and to discuss applicability of the program. Since the program is voluntary, in addition to meeting the Ready for Reuse determination standard, the first sites to utilize the program also needed to be receptive to publicizing the determination. The LDEQ participation with the U.S. EPA was to initially identify candidates for "first" sites, inform them of the program so that they could participate; then to utilize the publicity from the "firsts" in the state to create awareness of the program so that other facilities would realize the value to them.

- The LDEQ and the U.S. EPA held the (first in Louisiana) Ready for Reuse ceremony at ExxonMobil Baton Rouge Plastics Plant, a chemical plant, on December 9, 2003. It was well attended and publicized. Additional interest was created and a number of inquiries resulted.
- The LDEQ and the U.S. EPA held the first in Louisiana UST Ready for Reuse ceremony on March 3, 2004 at the 16th Annual UST/LUST Conference in New Orleans.
- A joint U.S. EPA/LDEQ presentation about Ready for Reuse was made at the LDEQ Waste Conference in Lafayette on March 18, 2004, and at the Brownfields Grantees conference May 7, 2004. A number of facility representatives contacted the LDEQ to discuss the process because of those presentations.
- On May 26, 2004, Motiva Enterprises in Norco, Louisiana was the first refinery in the nation to receive a Ready for Reuse determination. Occupying the same site, Shell Chemical LP was the second chemical plant in Louisiana to receive this designation.

Additional Louisiana facilities showing interest in a Ready for Reuse determination:

- The England Airpark team leader Mike Miller along with Douglas Bradford traveled to Alexandria to make a follow-up presentation to the Airpark manager, resulting in a request for a Ready for Reuse determination for a portion of the England Airpark. A ceremony with the U.S. EPA, The LDEQ, England Airpark, and BCT (BRAC Closure Team) representatives together with other stakeholders including representatives of the local and state groups took place at England Airpark on June 30, 2004.
- Exxon Chemicals Olefins Plant in Baton Rouge met with the LDEQ to discuss Ready for Reuse participation and is expected to submit a request soon.

The LDEQ has added a web page containing information for those interested in applying for a Ready for Reuse determination. This information can be found at the following address: http://www.deq.louisiana.gov/technology/reuse/default.asp .

2003 CHANGES TO THE RISK EVALUATION CORRECTIVE ACTION PROGRAM

The LDEQ first promulgated its Risk Evaluation/Corrective Action Program (RECAP) regulations on December 20, 1998, to address risks to human health and the environment posed by the release of chemical constituents to the environment. The RECAP regulations were revised through rulemaking on June 20, 2000, and again on October 20, 2003, to update toxicity information and address those areas that have proven to be problematic over the course of implementation of the document. The Department is continually working to improve the RECAP regulation and to ensure that the regulations are consistent with the latest scientific developments in this field.

The changes made FY 03-04 include additional guidance to clarify requirements of the regulations, additional guidance in the evaluation of pathways of exposure to constituents, updates in order to be more consistent with federal guidance and widely accepted methodology, and a revision of some appendices in order to avoid unnecessary repetition and enhance the efficiency of the implementation of the program by the regulated community. For a detailed list of the changes made refer to Appendix F of this report.

REMEDIATION SERVICES DIVISION

REMEDIATION USE OF FUNDING FY 03-04

USE OF DEDICATED STATE REMEDIATION FUNDS

HAZARDOUS WASTE SITE CLEANUP FUND (HWSCF)

Confirmed inactive and abandoned sites under the jurisdiction of the RSD may be remediated in accordance with the federal Superfund law, CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act), and the Superfund regulations (if they qualify under the superfund hazard ranking system), or in accordance with the Louisiana Environmental Quality Act and the LDEQ Inactive and Abandoned Sites Regulations. Confirmed sites without financially viable responsible parties may be eligible for remediation with government funding from the U.S. EPA Superfund, or the state's HWSCF.

In order for sites to be remediated with funding from the U.S. EPA Superfund Program, the LDEQ must commit to provide ten percent state match funding to the U.S. EPA for site remediation. Once site remediation is completed, the LDEQ must then accept full responsibility for long-term monitoring, as established in a site-specific agreement executed by the LDEQ and the U.S. EPA Region 6. The long-term monitoring phase of the Superfund site remediation process, called Operation and Maintenance (O&M), will then continue to be the state's full responsibility to fund and implement for those Superfund sites for several years. The ten percent state match funding for Superfund site remediation, and the funding for Superfund site O&M are provided by the HWSCF.

Currently there are four U.S. EPA-funded Superfund sites under remediation in Louisiana: the American Creosote Works, Inc. site, the Central Wood Preserving site, the Mallard Bay Landing Bulk Plant site, and the Old Inger Oil Refinery site. By the end of FY 03-04, site remediation work was nearing completion at the Central Wood Preserving and Mallard Bay Landing Bulk Plant sites. The LDEQ paid approximately $62,600 in state match funding to the U.S. EPA for Superfund site remediation work in FY 03-04. Also during this year, the LDEQ administered a groundwater monitoring contract for the Old Inger Oil Refinery Superfund site (a state-lead U.S. EPA-funded site); this monitoring work will continue through FY 04-05. Data from this monitoring work will be used to determine whether any further work is needed at the Old Inger site.

Additionally, the state of Louisiana has acquired responsibility for O&M for four other U.S. EPA-funded Superfund sites in Louisiana: Bayou Bonfouca, Delatte Metals, Madisonville Wood Preserving, and Southern Shipbuilding sites. Site remediation work was just completed at the Delatte Metals site during FY 03-04, and the state solicited bids for a new O&M contract set to begin in July 2004. The LDEQ also continued its O&M contracts at the Bayou Bonfouca and Madisonville Wood Preserving sites during FY 03-04. Superfund site O&M contract expenses were approximately $426,000 for this past year. The LDEQ is responsible for funding and implementing O&M at these three sites for thirty years or more. The Southern Shipbuilding site is now privately owned; therefore, the LDEQ is not funding and implementing the O&M, but the LDEQ oversees the O&M. In future years, the LDEQ will continue to be responsible for O&M at additional Superfund sites.

During FY 03-04, the LDEQ also continued administering contracts that are funded by the HWSCF for coring services and monitoring wells, data validation, analytical services and remediation services. These contracts are available for state-funded sites that do not qualify for the U.S. EPA Superfund program according to the hazard ranking system. At the end of the fiscal year, the RSD was soliciting bids for a $380,000 remediation project at the Teche Sugar Mill site that will continue into FY 05-06.

ABANDONED UNDERGROUND STORAGE TANK (UST) TRUST FUND

Revenue for the Abandoned UST Trust Fund is derived from interest earned by the Louisiana Motor Fuels UST Trust Fund, as mandated by R.S. 30:2195 F. To date, the Abandoned UST Trust Fund has been used to address the highest priority abandoned underground storage tank site in Louisiana, Burt's Chevron, in Ruston. The first contract, valued at approximately $350,000, was implemented to determine the extent of contamination, conduct a risk evaluation, and provide interim corrective action. This contract work was completed during FY 03-04. After review of the results of the first contract, to protect public health and the environment, a second contract will be developed to continue the process of site cleanup.

The LDEQ is also in the process of its second annual review of proposals from contractors who wish to participate in the two-step abandoned UST remediation services procurement. Step one of the process results in a list of eligible contractors with the requisite expertise and experience. Step two involves the development and award of contracts for UST site tank removals and remediation, based on a lowest bid from the eligible participants.

LOUISIANA MOTOR FUELS UNDERGROUND STORAGE TANK TRUST FUND

The LDEQ Office of Management and Finance administers the Louisiana Motor Fuels UST Trust Fund. In accordance with the UST regulations (LAC 33:XI.101 et seq), UST owners or operators who are eligible participants in the Motor Fuels UST Trust Fund Program may receive payment or reimbursement of costs for assessment, investigative, or remediation work that is necessary to mitigate releases from UST systems into the environment. A detailed financial report is prepared and submitted annually to the legislature by the LDEQ regarding use of this fund. RSD site team leaders conduct oversight of the work performed and may be paid with monies from this fund. In recent years, the UST Corrective Action Plan High Cost Panel was formed in order to ensure cost effective use of the Motor Fuels UST Trust Fund (as discussed in the FY 02-03 Annual Legislative Report). This panel is responsible for continued technical and financial review of the remediation plans submitted for site assessment, investigation, and remediation work where Motor Fuels UST Trust Fund monies will be used.

REMEDIATION SERVICES DIVISION

REMEDIATION ACTIVITIES DURING FY 03-04

INVOLVEMENT WITH REAL ESTATE TRANSACTIONS

Real estate transactions result in an increased workload for the RSD, as part of its oversight authority for the cleanup of contaminated properties in Louisiana. Virtually every sale of commercial real estate and large residential developments involves an evaluation of potential environmental liability. Often, both the buyer and the seller wish to evaluate the current environmental condition of the property. The buyer generally does not want to acquire an environmental liability and the seller does not want to face future questions of whether he sold contaminated property or whether contamination occurred subsequent to the sale.

Banks and other lending institutions generally require investigations commonly known as ASTM Phase I and/or ASTM Phase II investigations prior to lending money. Private sector environmental consultants perform these investigations. They are designed to identify potential environmental concerns or further evaluate identified environmental concerns. The Phase I is based on a records review and evidence gathered during an on-site visit. The Phase II is generally to evaluate a condition identified in a Phase I investigation and includes the collection of on-site samples for laboratory analysis.

Once elevated concentrations of contaminants in soil and ground water have been identified, all attention turns to the RSD as parties seek a letter of no further action. The letter of no further action is a statement from the RSD that indicates no further action is required at this time based on all information provided and known about the site. Completion of the transaction is often dependent upon receipt of a no further action determination and response from the RSD, making the RSD review and response a very time-sensitive issue for the provider of the investigation.

One problem currently being encountered by the RSD is the sheer volume of Phase II investigations that identify concentrations that exceed Risk Evaluation Corrective Action Program (RECAP) screening standards. Over the past few years, divestiture of large numbers of properties by major companies combined with bankruptcies and large-scale sales of companies have resulted in many Phase II evaluations of the same properties. This has artificially increased the workload on the RSD. At the same time, these detailed and

repeated evaluations have resulted in identifying some properties that do require further evaluations.

For instance, underground storage tank sites were evaluated using a cleanup matrix that considered several site-specific factors to identify cleanup standards that were protective of site use and exposure. If a facility sold motor fuel in the past and received a letter of no further action based on those matrix standards, the RSD does not require that further evaluation is warranted under RECAP unless some extenuating circumstance exists.

Therefore, the RSD must evaluate all physical and electronic records for every Phase II investigation submitted to the agency to determine whether the same site has been closed to a prior standard. If so, the RSD will only re-open the case if the concentrations identified exceed the original closure standards or if an imminent threat to public health or the environment is identified. If no prior standard has been applied, then RECAP becomes the standard and the site is added to the remediation universe of active sites.

The numbers of active remediation sites continue to increase. Since fiscal year 2000, the number of active remediation sites increased by approximately four hundred. Sites closed through letters of no further action, closure completion, or other appropriate means have almost doubled from fiscal year 2000 to 2004.

The RSD is seeking to find innovative ways to address the volume of sites identified as potentially contaminated through real estate transactions.

RSD COLLABORATION WITH LDHH IN ENVIRONMENTAL HEALTH EFFECTS TRACKING (EHET) PROGRAM

The Environmental Health Effects Tracking (EHET) Program is a new program in the Louisiana Department of Health and Hospitals, Office of Public Health, Section of Environmental Epidemiology & Toxicology (LDHH/OPH/SEET). It is an ongoing investigative project focused on collection, integration, analysis, interpretation, and dissemination of data on environmental hazards; exposures to those hazards; and related health effects. No systems currently exist at the state or national level to track many of the exposures and health effects that may be related to environmental releases. The goal of developing a tracking program is to provide information in a useable format to plan and evaluate actions to prevent and control environmentally related diseases. It is an attempt to integrate environmental data and public health data sets, which have historically been separate entities. The EHET program is a national program that is federally funded by the Centers for Disease Control (CDC). The CDC has provided grants to many state health agencies to develop and evaluate tracking systems. Eventually, the best tracking systems would be used at a national level.

The Louisiana Department of Environmental Quality / Remediation Services Division (LDEQ/RSD) has been asked to collaborate with LDHH/OPH/SEET in evaluating a specific health effects tracking program dealing with wood preserving sites. The goal is to develop a linked data system that will be serving as a springboard for future research. An agreement between the LDEQ and LDHH was executed in March 2004, which provides funding for the LDEQ to assist with the project. The duties of the LDEQ are to: assist with the collection and assembly of soil, groundwater, sediment, and surface water hazardous constituents concentration data from 32 wood preserving sites in Louisiana into a useable database format to link with public health data in the Louisiana Tumor Registry; provide guidance, supervision, and expertise on the environmental data; and work with LDHH to integrate the environmental data with the public health data.

To aid in public participation and agency interaction, LDHH has set up a community consortium composed of LDHH/OPH, LDEQ, United States Public Interest Research Group (U.S. PIRG), Louisiana Tumor Registry (LTR), Deep South Center for Environmental

Justice, the Louisiana Chemical Association, the Louisiana Medical Association, and the Resident Air Neutralization Group. The consortium met in April 2004, and will meet on a periodic basis to convey information and solicit input from all representatives.

Currently, the LDEQ has developed a proposed data format for the compilation of analytical data from the site files. There is no stand-alone database of hazardous constituent concentration data for the wood preserving sites. The information must be pulled from Site Investigation reports that are currently housed in the LDEQ's electronic file system. The data would be copied from the reports into a database that can later be integrated with public health databases. Some sites possess many sampling events throughout the years, resulting in thousands of data entries. One of the initial challenges will be to figure out the best way to compile data and copy it into a useable format. The LDEQ is working with LDHH personnel on this issue. The data gathered from the site file will consist of background summary information for the site, analytical laboratory data for media sampled per sampling episode, and sample location maps for each sampling episode.

The LDEQ RSD plans to continue working with LDHH on this program through FY 05-06.

REMEDIATION SERVICES DIVISION UNIVERSE STATISTICS

The Remediation Services Division (RSD) is responsible for overseeing both the soil and groundwater remediation of inactive and abandoned sites, hazardous waste sites, solid waste sites, and underground storage tank sites. The Division uses an electronic tracking system, Tools for Environmental Management and Protection Organizations (TEMPO), for tracking the progress of site remediation. Below is a description of the RSD site universe.

Currently, the RSD universe consists of 1,689 sites in some phase of soil and groundwater remediation:

- 156 Confirmed Sites
- 237 Solid Waste Sites
- 82 Hazardous Waste Sites
- 968 Underground Storage Tank Sites (including 40 "orphan" sites)
- 203 Groundwater Sites
- 43 Voluntary Remediation Program (VRP) Sites

There are also 458 "potential" sites that have not currently been assessed to determine: (1) if there is a need for remediation and (2) their regulatory jurisdiction. These potential sites are not included in the current universe of RSD sites listed above.

CONFIRMED SITES

The 156 "confirmed" sites are from the former Inactive and Abandoned Sites Division and are remediated under Comprehensive Environmental Response, Compensation, Liability Act (CERCLA), the Environmental Quality Act, and the Inactive and Abandoned Sites Regulations. Sites without financially viable responsible parties may be eligible for remediation with funding from the state's Hazardous Waste Site Cleanup Fund or the U.S. EPA Superfund program.

SOLID WASTE SITES

The 237 Solid Waste sites include sites from the former Solid Waste Division as well as new sites that are identified as Solid Waste sites in the RSD triage sub-process. These sites are

remediated under the Solid Waste Regulations. These are active sites with existing parties that are responsible for site remediation.

HAZARDOUS WASTE SITES

The 82 Hazardous Waste sites are from the former Hazardous Waste Division and are remediated under the Resource Conservation and Recovery Act (RCRA). These are active sites with existing parties that are responsible for site remediation.

UNDERGROUND STORAGE TANKS SITES

The Policy for Cleanup Levels at Underground Storage Tank Sites and the Risk Evaluation/Corrective Action Program (RECAP) regulations are used to determine the appropriate cleanup standards for the 968 Underground Storage Tanks (UST) sites. Some of these sites may be eligible for funding through the state's Motor Fuels Trust Fund or the U.S. EPA's Leaking Underground Storage Tank (LUST) Trust Fund. Additionally, the state Abandoned UST Trust Fund is available to the LDEQ to address "orphan" LUST sites. As of June 30, 2004, RSD has identified and prioritized 40 "orphan" sites among the 968 known leaking UST sites.

GROUNDWATER SITES

The 203 groundwater sites are those with groundwater contamination that are handled under the general authority of the Environmental Quality Act and Notification Regulations, and are not administered under media specific regulations. Most of these sites were carried over from the former Groundwater Protection Division, but some newer sites that do not fall within media specific regulatory programs are also included in this group.

VOLUNTARY REMEDIATION PROGRAM SITES

There are currently 43 sites enrolled in the Voluntary Remediation Program (VRP). This comprises approximately 2.5 percent of the RSD site universe. Participation in the program is continuing to increase with sixteen (16) sites entering the program during FY 03-04.

POTENTIAL SITES

The Potential Sites List ("P" List) is a carried over list from the former Inactive and Abandoned Sites (IAS) Division. The IAS Division kept a list of sites that could potentially

have some contamination and that could be candidates for Preliminary Assessment (PA). Many of the sites on that list were placed there because they were suspected to contain hazardous wastes or substances. The list was developed by the IAS Division staff, referrals from other divisions within the LDEQ, referrals from EPA or other agencies, and occasionally at the suggestion of persons outside the agency. These sites are slowly being addressed as resources allow. RSD staff members are reviewing to determine if the sites were adequately addressed based on existing documentation. These sites are a lower priority for the RSD relative to remediating confirmed sites.

SUPERFUND SITE UPDATES

MADISONVILLE WOOD PRESERVING COMPANY

The Madisonville Wood Preserving Company located in St. Tammany Parish is a 29 acre site. The facility treated wood products with creosote from the 1950s through 1994 when operations ceased. The site is in the LDEQ/RSD controlled operation and maintenance (O&M) stage. An O&M contractor, McDonald Construction, from Slidell, is managing the site. Creosote continues to be accumulated from the passive-drain-type collection system. The O&M contractor devised a high-pressure washer cleanout system to maintain collection efficiency. A local farmer cuts most of the site grass in return for use of the hay.

Madisonville Site on 7/29/04

CENTRAL WOOD PRESERVING

The Central Wood Preserving site is located in East Feliciana Parish. This site was comprised of wood preserving operations from 1950s to 1994. During operations, the wood preserving agents used were creosote and an agent containing arsenic acid, leading to arsenic and creosote being the constituents of concern for the site. The Central Wood Preserving site is currently undergoing U.S. EPA Superfund remediation. Because of the land ban restrictions for creosote, the creosote contaminated soil was treated by low temperature thermal desorption. The soils were disposed of as arsenic contaminated soil at an approved industrial landfill. Heavy rains caused some schedule slippage, but removal actions were completed by August 2004.

Central Wood Preserving Site on 8/4/04

COMBUSTION INC.

Combustion Inc. is located about 2.5 miles northeast of Denham Springs, Louisiana. The site consists of about six acres, which was used as a waste oil recycling facility. In July 1992, the site's potentially responsible party and the LDEQ agreed to conduct an expedited removal action to reduce the threat of exposure from the site to area residents. The LDEQ and EPA drafted a proposed plan concerning future remedial actions for the site. The proposed plan was presented to the community on May 8, 2003. The formal proposed plan public meeting was held on June 5, 2003, and the comment period lasted from May 21, 2003, through June 23, 2003. The comments received from the community and responses to those comments along with a final remedy were incorporated into a final Record of Decision signed by EPA on May 28, 2004.

Combustion Inc. Site
Track hoe used to collapse a subset of trees for leaf/needle and root sampling

Combustion Inc. Site
Trees used for phytoremediation project
Looking north from process area

DEVIL'S SWAMP LAKE

Devil's Swamp Lake is located at the northern end of the Baton Rouge Barge Harbor near the town of Alsen, in East Baton Rouge Parish. The site is comprised of a borrow pit and adjacent land where some fish, sediment, and crawfish that are contaminated with polychlorinated biphenyl congeners have been found. The borrow pit resulted from excavation of material to build a levee at the northern end of the Baton Rouge Barge Harbor. Devil's Swamp Lake has been proposed for listing on the National Priority List (NPL) also known as the Superfund list. That process is nearing its completion. Funding is available for additional investigation and possible remediation if the site is listed.

Devil's Swamp Lake Site
Aerial photo taken in 1998
Crescent shaped body of water
is the lake

Devil's Swamp Lake Site
Aerial photo take March 22, 2002

OLD INGER OIL REFINERY

Old Inger Oil Refinery is located in an un-incorporated area, between Geismar and the Darrow Community on the west side of LA Highway 74 (River Road) in Ascension Parish. This facility began operation as a small refinery that processed the small quantity of crude oil and other liquid petroleum products that were produced with natural gas, and consist of numerous wells called the "Darrow Field". In addition to this process, the facility also accepted and treated used oil and other petroleum products that came from the cleaning of barges, water vessel bilges, and tanks. The product from the facility was stored in tanks while the waste and materials for future processing were stored in unlined earthen pits.

Site remediation began with removal and stockpiling of the liquids and highly contaminated soil. The liquids were stockpiled in two vertical tanks and a series of horizontal tanks, while the solids were formed into large piles within the boundaries of the lagoons that originally held the waste. The contaminated soil was biologically treated on a land treatment unit (LTU). Microorganisms were introduced in the stockpiled soil of the LTU, hay was added for tilth, and manure was added as a fertilizer and source of microorganisms. This site is now in the verification monitoring stage. Monitoring is done using groundwater monitoring wells screened in the first permeable zone that will produce water surrounding the areas where waste was originally dumped, stockpiled, or treated on the LTU. The site will be proposed for de-listing (removed from the NPL) if the groundwater monitoring wells continue to be clean.

Preparing to sample new well at Old Inger Site

Sampling a well at the Old Inger Site

PETRO PROCESSORS OF LOUISIANA, INC.

The Petro Processors site is comprised of two disposal sites located north-northwest of Baton Rouge. The Brooklawn Site is located at the end of Brooklawn Drive, and the Scenic Site is located on the west side of Scenic Highway. These sites accepted domestic trash, construction debris, and a variety of industrial and chemical wastes. At the Scenic Site the waste was placed in a borrow pit that was dug for highway construction material. Waste at the Brooklawn Site was placed in small disposal pits embedded in the bluff and in a channel of Bayou Baton Rouge that was blocked off. Some of the waste escaped this “bayou pit” and flowed into Bayou Baton Rouge some 3000 feet across Hall Buck Road. The liquid waste was removed and an attempt was made to excavate and solidify the materials in a properly lined disposal landfill. This failed due to the liberation of substantial quantities of toxic vapors. Following this activity, the site was capped with at least two feet of compacted soil and recovery wells began pumping the liquid waste organics in the groundwater. An on-

site water treatment unit and incinerator were built to destroy the toxic chemicals that were in the water and oily materials produced from the recovery wells. Production of petrochemical contaminated liquid has fallen to the point that there is no reason to continue operating the on-site incinerator. The wastes are now being disposed at incinerators permitted to accept them. Concurrently the ability of naturally occurring microorganisms to degrade the wastes is being demonstrated and monitored. Data shows that the contaminant-plumes have not migrated to the extent that would be expected, given the time in question and the local area's soil properties. A laboratory study of the native soil and pollutants by researchers at Louisiana State University, has produced rate constants that have been modeled to indicate that the liquid petrochemicals on site will not move deeper or further from their present location. The models also show that the contaminants that are dissolved in water will be degraded before they reach any potential receptors. Perimeter groundwater monitoring, free liquid recovery, treatment of water, and natural attenuation monitoring will continue into the foreseeable future.

Petro Processors
Abandoned Recovery Well on the Petro Site

Petro Processors
Swamp/forest south of Brooklawn unit on the Petro Site – contains contaminated groundwater

DELATTE METALS

The Delatte Metals Site located in Tangipahoa Parish consists of the Delatte Metals Inc. facility, the abandoned North Ponchatoula Battery (NPB) facility, and areas outside of these facilities that were impacted with contaminants. The total area of the site is about 57 acres. The facilities located on the site conducted a battery recycling and smelting operation, which produced contamination. Lead is the most abundant and extensive contaminant of concern at the Delatte Metals site. On January 19, 1999, the U.S. EPA formally announced the addition of the Delatte Metals Site to the NPL. The EPA superfund site construction was

completed on September 22, 2003. This included a combination of the immobilization treatment process, installation of the permeable treatment wall, off-site disposal of immobilized wastes, institutional controls in the form of conveyance notices, and groundwater monitoring at the site. The site is currently in the Operation & Maintenance (O&M) period. The LDEQ is currently in the process of verifying that all necessary conveyance notices are filed with the Tangipahoa Parish Clerk of Court's Office, and is preparing for the transfer of the responsibility for the O&M work from the U.S. EPA to the LDEQ beginning September 22, 2004.

Delatte Metals
Well install in PRB on 3/24/03

Delatte Metals
Backfill over liner in PRB wall on 5/23/03

SITE REMEDIATION SUCCESSES

During FY 03-04, No Further Actions (NFAs) were issued for one hundred sixty-six (166) sites under the RSD jurisdiction. This means that all work at these sites has been completed and the RSD has concluded that no further remediation work is needed based on their current condition and use. These one hundred sixty-six (166) sites include: sixty-eight (68) underground storage tanks sites; thirty-eight (38) solid waste sites; forty (40) groundwater sites; eight (8) confirmed sites; one (1) potential site; nine (9) hazardous waste sites; and two (2) voluntary remediation program sites. A statewide map indicating the number of completed sites by parish and a site list providing details about the NFAs issued is provided in Appendix A.

Highlights of several recent RSD site remediation efforts and successes are described in the following paragraphs.

CALCASIEU ESTUARY

The Calcasieu Estuary, located in southwest Louisiana, includes an industrialized area in which several chemical and petroleum refining companies appeared in the early 1920s. These companies produced a wide variety of industrial chemicals, petroleum products, and commercial feedstock. In 1999, the U.S. EPA conducted a Remedial Investigation and identified five areas that required further response action. In May 2003, the LDEQ and the U.S. EPA signed a Memorandum of Agreement designating the LDEQ as the lead agency for three of the areas, Bayou d'Inde, the Citgo Lagoon, and Indian Marais Bayou. Four of the five industrial locations identified in EPA's Remediation Investigation report of Bayou d'Inde have entered into a Cooperative Agreement with the LDEQ. The PRP's responses to LDEQ's comments on the Bayou D'Inde work plan are currently under review. The Indian Marais site is currently being rerouted with project completion projected in January 2005. Currently, the LDEQ is preparing to respond to the CITGO Site with respect to the remedial facility investigation of Citgo Lagoon.

ENGLAND AIR FORCE BASE

England Air Force Base (EAFB), located in Rapides Parish, occupies approximately 2,284 acres, and was closed in December of 1992. Once investigations and corrective actions for the EAFB sites were completed, the Air Force turned the property over to the England Economic and Industrial Development District, a division of the State of Louisiana created to redevelop the former Base. The property is currently being used for aviation, transportation, manufacturing, education, and health care.

INNER HARBOR NAVIGATION CANAL

The Inner Harbor Navigation Canal lock is being replaced by the US Army Corps of Engineers. The East Bank Industrial Area will be the location for the new by-pass channel. The East Bank Industrial Area consists of six facilities in which the first step of remediation was to remove the remnants of the facilities. As of June 2003, remediation was completed and No Further Action at This Time (NFA-ATT) has been granted to three of the facilities. Site work has been done at two of the three remaining facilities and remediation will be complete pending RSD approval of the final report. Due to a shortage of funding, remediation work was shut down for most of 2003, and early 2004. It is anticipated that adequate funding will be made available in October 2004.

NORTH BOULEVARD IMPROVEMENTS SITE

The North Boulevard Improvement Site consists of a number of small commercial properties operating along North Boulevard in Baton Rouge. The businesses include automobile repair and gas stations, dry cleaning facilities, construction suppliers, plumbing contractors, and seafood sales. The City of Baton Rouge expropriated the properties to widen North Boulevard and create a by-pass over the existing railroad track. In November 2003, the City of Baton Rouge entered the LDEQ VRP to investigate the site. In June 2004, the LDEQ is reviewed the Site Investigation and RECAP report for approval. The next phase will be submission of a Remedial Action Work Plan to address the four remaining properties requiring further action.

MALLARD BAY LANDING SITE

The Mallard Bay Landing Site is located on the Intercoastal Waterway in Cameron Parish. The site was a crude oil bulk refining facility that operated from the 1970s to early 1987, when the company that owned it filed for bankruptcy. In 1997, the U.S. EPA Removal

Program along with LDEQ's Inactive and Abandoned Sites Division determined that the site qualified for U.S. EPA remedial action. The LDEQ requested that the U.S. EPA collect extra samples and information during the Remedial Action to determine if the site is NPL eligible. In July 2000, the site was listed on the NPL. The Remedial Action was completed in October of 2003. The U.S. EPA and the LDEQ are currently working on the final closeout of the site so that it can be de-listed from the NPL.

ROY YOUNG SITE

The Roy Young, Inc. site located in Vermilion Parish was in operation from 1956 to 1998 as a family-owned disposal facility for oily wastes and wash waters from truck cleaning. Interim corrective action remediation of the site began in January 2002. In August of 2002, the PRP entered the VRP. A Site Investigation was conducted resulting in additional soil cleanup. In February 2004, sampling confirmed that the industrial standards were achieved and the LDEQ granted a No Further Action/Certificate of Completion in June 2004.

Appendix B contains detailed summaries of these highlighted sites, along with photographs.